

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANTS: Philpott
SERIAL NO.: 10/644,354
FILED: 8/20/2003
GROUP ART: 3683
EXAMINER: Williams, Melanie Torres
FOR: Brake Overstroke Indication System
CONF. NO.: 5864

Mail Stop Appeal Brief-Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Dear Sir:

Responsive to the Examiner's Answer dated August 4, 2009, please consider the following remarks. The appeal brief fee has already been paid. Any additional fees or credits may be charged or applied to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds.

STATUS OF CLAIMS

Claims 24-33, 35-37, and 39-40 are pending, rejected, and appealed. Claims 1-23 have been cancelled. Claim 34 has been withdrawn. The rejections for claims 38 and 41-44 have been withdrawn and these claims are now indicated as allowable.

REMARKS

Appellant respectfully reiterates all of the arguments made in the Appeal Brief and in previous Office Action responses to address the Examiner's Answer. Additional arguments, prepared in response to new issues raised in the Examiner's Answer, are set forth below.

A. Anticipation Rejection Over Hockley

Claims 24, 27, and 32

Hockley does not disclose mounting an overstroke sensor to a brake housing. Instead, Hockley discloses mounting pointers 32, 34 to a bracket 30 that is mounted to a vehicle frame 22. The bracket 30 is not a housing and is not associated with a housing. The bracket 30 is configured to be separate from the brake assembly such that the bracket 30 can be mounted to the vehicle frame 22 in a variety of positions. See col. 4, lines 50-59.

The examiner further argues that Hockley teaches mounting an overstroke sensor with a bolt to a housing portion 12, 14. Element 12 of Hockley comprises an air chamber 12 with a diaphragm 14. Appellant respectfully asserts that elements 12, 14, and 30 cannot be considered as corresponding to the claimed housing for the brake assembly. The examiner argues that the claimed term has been broadly interpreted in a reasonable manner; however, appellant respectfully asserts that one of ordinary skill in the art would not consider the bracket 30 of Hockley as being any type of housing.

Claim 25

Claim 25 recites that the overstroke sensor is directly mounted to the housing portion. For the reasons set forth above, appellant asserts that air chamber 12, diaphragm 14, and/or bracket 30 cannot be considered as corresponding to the claimed housing.

The examiner argues that the housing portion is interpreted as element 30 which is connected to housing portion 14. The overstroke sensor 32, 34, 36 is clearly not directly mounted to any type of housing. Instead, pointers 32, 34 are mounted directly to a plate that is mounted to a bracket 30 (see Figure 4), which is directly mounted to a frame 22 (see Figure 3). Hockley also teaches mounting an indicator 36 directly to a clevis pin that is coupled to the push rod 16. There is no direct attachment of elements 32, 34, 36 to a housing as claimed.

Claim 26

Appellant respectfully asserts that, for the reasons set forth above with regard to 24, bracket 30 cannot be considered as corresponding to the claimed housing. Further, bracket 30 clearly cannot be considered as corresponding to a non-rotating brake component as defined in claim 26. Bracket 30 is mounted to a vehicle frame and does not form any part of a vehicle brake assembly.

Claim 33

The examiner has argued that the overstroke sensor comprises pointers 32, 34 and that the bracket 30 corresponds to the claimed housing portion. The pointers 32, 34 are not movable members. Instead, pointers 32 remain fixed/locked to the bracket 30. Further, the pointers 32, 34 are not moved relative to bracket 30 in response to contact from the operating shaft to indicate an overstroke condition. Instead, indicator 36 is moved relative to the pointers 32, 34 to indicate an overstroke condition. When indicator 36 has moved beyond pointer 34, an overstroke condition is identified.

The examiner argues that Figure 4 of Hockley shows that the plate 52 is moveable within a slot of the bracket 30 as indicated by arrows. This slot is used to allow adjustment of the position of the plate relative the bracket to accommodate different brake systems. Once the plate

is in the correct position it is locked into place, “By tightening nut 60 on bolt 56, plate 52, and accordingly reference pointers 32 and 34, are fixed in position on bracket 30.” See col. 5, lines 63-65.

Claim 35

The examiner argues that elements 32, 34 are mounted through an opening in housing wall of element 30. Claim 35 recites that the overstroke sensor is mounted within the opening. The examiner has argued that bracket 30 is the housing wall but the pointers 32, 34 are not mounted within an opening in element 30. Pointers 32, 34 are located on only one side of bracket 30.

Claim 36

For the reasons set forth above with regard to claim 24, appellant respectfully asserts that bracket 30 cannot be considered as corresponding to the claimed housing. Further, for the reasons set forth above with regard to claim 26, the bracket 30 cannot be considered to be a brake component.

Further, the overstroke sensor in Hockley is not mounted to a non-rotating component as defined in claim 36. To identify an overstroke condition, the vehicle operator must view the position of the indicator 36. Indicator 36 is mounted to the clevis pin that is coupled to the movable push rod, i.e. Hockley teaches mounting the overstroke sensor to a movable component.

Claim 37

Claim 37 recites the step of directly mounting the overstroke sensor to the non-rotating brake housing portion. For the reasons set forth above, appellant asserts that the bracket 30 cannot be considered as corresponding to the claimed non-rotating brake housing.

Further, Hockley does not disclose mounting a sensor *directly* to a brake housing as claimed. Hockley discloses mounting pointers 32, 34 to a plate 52 on a bracket 30, which is directly mounted to a frame 22, and teaches mounting an indicator 36 directly to a clevis pin that is coupled to the push rod 16.

Claim 39

Claim 39 is allowable for the same reasons that claim 35 is allowable.

B. Obviousness Rejection of Hockley Modified by White**Claims 28 and 40**

The examiner argues that providing electronic indication rather than mechanical indication is well known and would have been an obvious modification. However, the examiner's proposed modification cannot render the prior art unsatisfactory for its intended purpose and cannot change the principle of operation of the base reference. See MPEP 2143.01. Hockley's purpose is to provide a *visual* brake indicator that operates to indicate adjustment irrespective of the angle from which it is viewed. The examiner is arguing that Hockley should be modified to use a sensor to generate a signal as taught by White to prevent the need for manual inspection. This would render Hockley unsatisfactory for its intended purpose.

Further, the United States Supreme Court confirmed that "when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be non-obvious" (KSR Int'l Co. v. Teleflex, Inc. et al., 127 S.Ct. 1727 (2007)). Hockley clearly teaches away from the examiner's proposed modification as the entire purpose of Hockley is to provide a visual brake indicator.

Claim 29

For the reasons set forth above, appellant asserts that the proposed modification of Hockley is improper. However, even if motivation or suggestion could be found, modifying Hockley with the teachings of White would not result in the structure recited in claim 29. The examiner again argues that providing electronic indication rather than mechanical indication is well known and would have been an obvious modification. However, the examiner has proposed the modification based on the teachings of White. White teaches the use of a switch 56 that is mounted to the moving push rod 14. The push rod moves the switch into contact with the

actuator lever 36. If one of ordinary skill in the art were to modify Hockley with the teachings of White, the result would be to mount a switch to the push rod 16 in Hockley such that the switch could contact the shaft 18 to indicate an overstroke condition.

However, the claims require that the switch be fixed to the housing portion. Neither Hockley nor White disclose, suggest, or teach mounting a switch to a housing portion as claimed. The only disclosure of this feature is found in appellant's application. The examiner is clearly engaging in a hindsight reconstruction of the claimed invention.

Claim 30

For the reasons set forth above, appellant asserts that the proposed modification of Hockley is improper. Further, for the reasons set forth above, appellant asserts that modifying Hockley with the teachings of White would not result in the configuration set forth in claim 30.

Further, claim 30 requires that the distal end of the operating shaft contact the switch. Neither Hockley nor White disclose, suggest, or teach contacting a switch with a distal end of an operating shaft as claimed to indicate an overstroke condition. The examiner argues that Figures 3 and 4 of White disclose that the distal end of shaft 36 contacts the switch. Actuator lever 36 has one end connected to the clevis 51 at 54 and an opposite end connected to shaft 34 at 52. The switch 56 contacts a side of the lever body at a position that is between these two ends. As such, appellant respectfully asserts that it is not reasonable to assert that lever 36 contacts the switch at a distal end location.

Claim 31

For the reasons set forth above, appellant asserts that the proposed modification of Hockley is improper. Further, for the reasons set forth above, appellant asserts that modifying Hockley with the teachings of White would not result in the configuration set forth in claim 31.

Further, claim 31 requires that a tab portion, adjacent to the cam portion, contact the switch. Neither Hockley nor White disclose, suggest, or teach contacting a switch with tab portion of the operating shaft as claimed to indicate an overstroke condition. The examiner argues that element 36, i.e. indicator, of Hockley is considered as corresponding to the claimed tab portion; however this “tab portion” is clearly not adjacent to a cam portion as defined in claim 31. Indicator 36 is instead located near a distal end of the adjuster 18.

The examiner argues that one of ordinary skill in the art would be able to easily make a modification such that a sensor is mounted to a housing portion, and such that the indicator is capable of being the claimed “tab.” Appellant disagrees. None of the references teach mounting to a brake housing as claimed. Further, none of the references teach contacting a switch with tab portion of the operating shaft as claimed to indicate an overstroke condition. The examiner merely states that it would be an obvious modification to do so without any explanation as to why one of ordinary skill in the art would modify Hockley to do so. As stated by the United States Supreme Court, “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” KSR Int’l Co. v. Teleflex, Inc. et al., 127 S.Ct. 1741 (2007)).

CONCLUSION

For the reasons set forth above and in the Appeal Brief, the rejection of all claims is improper and should be reversed.

Respectfully submitted,

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